AUTHOR INDEX

AAMLID, K. H., 373 AKHLAQ, M. S., 71 AL-BAGHDADI, S., 71 ALFÖLDI, J., 195 AOKI, Y., 499

BAER, H. H., 486 BAIRD, J., 117 BATTA, G., 465 BAUER, T., 493 BIRBERG, W., 297 BOGNAR, R., 465 BÖSHAGEN, H., 141 BROSER, E., 59 BROSSMER, R., 49 BUCHANAN, J. G., 403

CAPEK, P., 443 CHMIELEWSKI, M., 493 CHOWDHURY, T. A., 117 CRAMER, F., 33

Dangschat, G., 343 Defaye, J., 195 Doboszewski, B., 470

EDGAR, A. R., 403 EMANUELLI, M., 433 ENGELHARDT, R., 33 ESTERBAUER, H., 85

FISCHER, H. O. L., 343 FISCHER, R., 177 FÖRTSCH, A., 391 FOURNET, B., 43 FRASER-REID, B., 229 FRELEK, J., 149 FÜGEDI, P., 297

Gabius, H.-J., 33
Garegg, P. J., 297
Gasch, C., 255
Gerken, M., 327
Gilron, I., 486
Goerlach, A., 177
Gómez-Sánchez, A., 255
Gracia Garciá-Martín, de, Mª, 255
Guder, H. J., 177

HAGEDORN, H.-W., 49 HANSEN, A., 123 HARANGI, J., 313 HAREMSA, S., 453 HEIKER, F.-R., 141 HEINS, H., 59 HENDRY, D., 373 HERCZECH, P., 465 HOUGH, L., 373 HUTCHISON, R. J., 403

JERKOVICS, G., 459 JULINA, R., 415 JURCZAK, J., 493

Kardošová A., 443 Kerékgyártó, J., 313 Kinzy, W., 265 Klimov, E. M., 241 Kochetkov, N. K., 241 Kogelberg, H., 391 Köll, P., 161, 391 Kopf, J., 161 Krach, T., 177 Krohn, K., 59 Kuszmann, J., 459

Liang, D., 229 Lichtenthaler, F. W., 1, 357 Lindberg, B., 117 Lindner, H. J., 357 Lindquist, U., 117 Linek, K., 195 Lipták, A., 149, 313 Lisman, J. J. W., 43 Lough, C., 433 Luger, P., 49

Makarova, Z. G., 241
Malysheva, N. N., 241
Maurer, W., 453
Medgyes, G., 459
Milde, R., 23
Montreuil, J., 43
Müller, I., 415
Munir, M., 477
Mutsaers, J. H. G. M., 43
Muzzarelli, R. A. A., 433

Nehls, I., 107 Neumann, M., 177 Nieuw Amerongen, A. V., 43

Oderkerk, C. H., 43 Ogawa, S., 499 Ogawa, T., 277 Ott, A. Ya., 241 Overdijk, B., 43

PASHALIDIS, A., 357 PHILIPP, B., 107 PILOTTI, Å., 297

RICHARDSON, A. C., 373 RÖPER, H., 207 ROSÍK, J., 443 ROUKEMA, P. A., 43

Sattler, W., 85 Schildknecht, H., 23 Schiweck, H., 477 Schmidt, R. R., 265 Schnabelrauch, M., 107 Schneider, B., 477 Schöttmer, B., 327 Schuda, A. D., 229 Schüller, A. M., 141 Snatzke, G., 149 Steinmeier, H., 97 Sterk, H., 85 Szurmai, Z., 313 TAKAGAKI, T., 499 TAKAHASHI, Y., 277 TEITZE, L. F., 177 THIEM, J., 327 TOMAN, R., 443

VAN HALBEEK, H., 43 VASELLA, A., 415 VLAHOV, I., 149 VLIEGENTHART, J. F. G., 43 VON SONNTAG, C., 71

WAGENKNECHT, W., 107 WEIGAND, J., 327 WEINGES, K., 453 WOLF, J. H., 43 WULFF, G., 123 WYLER, R., 415

ZAKI, C., 49 ZAMOJSKI, A., 470 ZHULIN, V. M., 241 ZSELY, M., 465 ZUGENMAIER, P., 97

SUBJECT INDEX

- Acetal-α-glucosides, stereoselective synthesis, 177
- 2-Acetamido-1,3,5-trideoxy-1,5-imino-D-glucitol (2-acetamido-1,2-dideoxynojirimycin), synthesis, 141
- N-Acetyl-4-deoxy-4-iodoneuraminic acid, derivative, crystal structure of, 49
- N-Acetylneuraminic acid and [6-2H]-N-acetylneuraminic acid, synthesis from N-acetyl-D-glucosamine, 415
- Althaea officinalis L. (marsh mallow), acidic polysaccharide from the roots of, 443
- L-Amino acids, N-(1-deoxy-D-fructos-1-yl)-Nnitroso-, synthesis and properties of, 207
- Amphotericin B, a chiron for the C-33-C-37 segment of, 229
- 2,6-Anhydro heptono- and -hexononitriles, per-O-acetyl derivatives, crystal structures of, 161
- 2,6-Anhydro-1-deoxy-1-nitroalditols, synthesis via nitromethane addition of, 391
- Anthracyclinone synthesis, chiral building blocks for, 59
- Application of the trichloroacetimidate method to the synthesis of glycopeptides of the mucin type containing a β-D-Galp-(1→3)-D-GalpNAc unit, 265
- Aureolic acids, synthesis of trisaccharide E-D-C of, 327
- Bis(ethylsulphonyl) α D lyxopyranosylmethane derivatives, rearrangement, 403
- Building blocks for anthracyclinone synthesis, chiral, 59
- Cellulose, homogeneous sulphation in N₂O₄-DMF, 107
- Cellulose triesters, synthesis and structural investigations of the crystalline state, 97
- Chemistry of the 1-deoxynojirimycin system: synthesis of 2-acetamido-1,2-dideoxynojirimycin starting from 1-deoxynojirimycin, 141
- Chiral building blocks from methyl α-D-mannopyranoside and methyl α-D-glucopyranoside for anthracyclinone synthesis, 59
- Chiroptical properties of pyranoid glycols in the presence of [Mo₂(O₂CCH₃)₄], 149
- Chitosans, the molecular weight of, studies by laser light-scattering, 433
- Conduritol, configuration (original proof), 343
- Configuration of conduritol and the synthesis of muco-inositol and allo-inositol, 343

- Convenient synthesis of a building-block derivative of nigerose, 470
- Conversion of D-fructose into 4-amino, 4-amino-4-C-methyl, and 3,4,5-triamino derivatives of Lsorbose, 357
- Cyanides, derived from β -D-mannose, α -D-ribose, and α -D-idose, crystal structures of, 161
- Cyclomaltohexaose, total synthesis of, 277
- 1-Deoxynojirimycin, synthesis of 2-acetamido-1,2-dideoxynojirimycin from, 141
- N-(1-Deoxy-D-fructos-1-yl)-N-nitroso-L-amino acids, synthesis and properties of, 207
- Diazomethane, cycloaddition to nitroalkenic sugars, 486
- Diglycosylamines, structure and rearrangement reactions, 195
- 1,2-Dihydroxyalkyl radicals, reduction by dithiothreitol, 71
- Effect of high pressure on the stereospecificity of the glycosylation reaction, 241
- Enantiospecific synthesis of (R)-1,4,7-trioxaspiro-[5.5]undecane from D-fructose, 373
- Expression of endogenous lectins in human smallcell carcinoma and undifferentiated carcinoma of the lung, 33
- Fischer, Hermann O.L., biographical sketch, 1 Freudenberg, Karl, biographical sketch, 1
- D-Fructose, conversion into amino and amino-C-methyl derivatives of L-sorbose, 357
- D-Fructose, 1-O-α-D-glucopyranosyl-, preparation from sucrose of, 477
- D-Fructose, synthesis of (R)-1,4,7-trioxaspiro-[5.5]undecane from, 373
- Gallic acid, 4-O-β-D-glucopyranosyl-, synthesis of, 23
- General approach to the synthesis of 2,3-di-Oprotected derivatives of D-glyceraldehyde, 493
- α-D-Glucopyranosyl bromide, 3,4,6-tri-O-acetyl-2
 -deoxy-2-[(4,4-dimethyl-2,6-dioxocyclohexyl-idenemethyl)amino]-, Koenigs-Knorr glycosidations with, 255
- 4-O-(β-D-Glucopyranosyl 6-sulfate)gallic acid, synthesis of, 23
- 1-O-α-D-Glucopyranosyl-D-fructose, preparation from sucrose of, 477
- Glucosides, acetal- α -, stereoselective synthesis, 177

D-Glyceraldehyde, 2,3-di-O-protected derivatives, synthesis, 493

Glycolaldehyde-anion equivalent, new, and the synthesis of monosaccharides, 123

Glycols, pyranoid, chiroptical properties in the presence of [Mo₂(O₂CCH₃)₄], 149

Glycopeptides, mucin-type, synthesis by the trichloroacetimidate method, 265

Glycosylated trehalose: synthesis of the oligosaccharides of the glycolipid-type antigens from Mycobacterium smegmatis, 313

Glycosylation reaction, the stereospecificity of the, the effect of high pressure on, 241

Glycosylic carbohydrate chains derived from murine submandibular mucin (MSM), primary structure of O- and N-glycosylic, 43

Helferich, Burckhardt, biographical sketch, 1 Heptasaccharide having phytoalexin-elicitor

activity, synthesis, 297 Hex-3-enopyranosides, synthesis from 5-hydro-

xymethyl-2-furaldehyde of 3,4-dideoxy-DL-, 465 3,4-Hexodiulose, D-threo-, the synthesis and stereochemistry of derivatives of, 459

β-D-arabino-Hexopyranose, 2,6-dideoxy units, synthesis of a trisaccharide composed of (1→3)-linked, 327

"Homogeneous" and "heterogeneous" cellulose triesters and a cellulose triurethane: synthesis and structural investigations of the crystalline state, 97

Hydroxyl radicals, reactions with polyhydric alcohols and subsequent processes, kinetics, 71

5-Hydroxymethyl-2-furaldehyde, synthesis of 3,4dideoxy-DL-hex-3-enopyranosides from, 465

allo-Inositol and muco-inositol, syntheses (original) from conduritol, 343

Investigations of lignocellulosic materials by the carbon-13 n.m.r. c.p.-m.a.s. method, 85

Karl Freudenberg, Burckhardt Helferich, Hermann O. L. Fischer. A tribute on their 100th birthdays, 1

Koenigs-Knorr glycosidations with 3,4,6-tri-O-acetyl-2-deoxy-2-[(4,4-dimethyl-2,6-dioxo-cyclohexylidenemethyl)amino]-α-D-glucopyranosyl bromide, 255

Lectins, endogenous, in human lung carcinoma,

Lignocellulosic materials, c.p.-m.a.s. ¹³C-n.m.r. investigations, 85

Lung carcinoma, human, endogenous lectins in, 33

α-D-Lyxopyranosylmethane, bis(ethylsulphonyl)-, rearrangement of derivatives, 403

Marsh mallow, acidic polysaccharide from the roots of the, 443

Methyl glycosides, Mitsunobu reaction on, 453

Mitsunobu reaction on methyl glycosides as alcohol component, 453

Molecular weight of chitosans studied by laser light-scattering, 433

Monosaccharides, new glycolaldehyde-anion equivalent and the synthesis of, 123

Murine submandibular mucin (MSM), primary structure of O- and N-glycosylic carbohydrate chains derived from, 43

Neuraminic acid, N-acetyl and [6-2H]-N-acetyl-neuraminic acid, synthesis from N-acetyl-D-glucosamine, 415

Neuraminic acid, N-acetyl-4-deoxy-4-iodo-, derivative, crystal structure of, 49

Nigerose, building-block derivative of, synthesis, 470

Nitriles, heptono- and hexono-, 2,6-anhydro-, per-O-acetyl derivatives, crystal structures of, 161

1-Nitroalditols, 2,6-anhydro-1-deoxy-, synthesis *via* nitromethane addition of, 391

Nitroalkenic sugars, cycloaddition of diazomethane to, 486

Nitromethane addition, synthesis of 2,6-anhydro-1-deoxy-1-nitroalditols, 391

N-Nitrose-L-amino acids, N-(1-deoxy-D-fructos-1-yl)-, synthesis and properties of, 207

¹³C-N.m.r. c.p.-m.a.s. investigations of lignocellulosic materials, 85

¹³C-N.m.r. spectroscopic study of the homogeneous sulphation of cellulose and xylan in the N₂O₄-DMF system, 107

α-D-manno-2-Nonulopyranosidonic acid methyl ester methylglycoside, 5-acetamido-3,4,5-tri-deoxy-4-iodo-8,9-O-isopropylidene-, crystal structure of, 49

Oligosaccharides of the glycolipid-type antigens from *Mycobacterium smegmatis*, synthesis of the, 313

On the attack of hydroxyl radicals on polyhydric alcohols and sugars and the reduction of the soformed radicals by 1,4-dithiothreitol, 71

Periodic leaf movement factor, synthesis of, 23 Phytoalexin-elicitor heptasaccharide, synthesis, 297

Polyhydric alcohols, reactions with hydroxyl radicals and subsequent processes, kinetics, 71

Polysaccharide S-657, from *Xanthomonas* ATCC 53159, structure, 117

- Polysaccharides from the roots of the marsh mallow (*Althaea officinalis* L., var. Rhobusta): structural features of an acidic polysaccharide. 443
- Preparation of some carbohydrate pyrazolines by cycloaddition of diazomethane to nitroalkenic sugars, 486
- Primary structure of O- and N-glycosylic carbohydrate chains derived from murine submandibular mucin (MSM), 43
- Pyranoid glycols, chiroptical properties in the presence of [Mo₂(O₂CCH₃)₄], 149
- Pyrazolines by cycloaddition of diazomethane to nitroalkenic sugars, 486
- Rearrangement of derivatives of bis(ethylsulphonyl)-α-D-lyxopyranosylmethane, 403
- Shikimate, methyl, synthesis from methyl (1,3,4/2,5)-2,3,4,5-tetrahydroxycyclohexane-1-carboxylate, 499
- L-Sorbose, amino and amino-C-methyl derivatives from D-fructose, 357
- Structural studies of an extracellular polysaccharide, S-657, elaborated by *Xanthomonas* ATCC 53159, 117
- Structure and rearrangement reactions of some diglycosylamines, 195
- Sucrose, preparation of 1-O-α-D-glucopyranosyl-D-fructose from, 477
- Sulphation of cellulose and xylan in N₂O₄-DMF, 107
- Synthesis of acetal- α -glucosides. A stereoselective entry into a new class of compounds, 177
- Synthesis of N-acetylneuraminic acid and [6-2H]-N-acetylneuraminic acid from N-acetyl-Dglucosamine, 415

- Synthesis of a branched heptasaccharide having phytoalexin-elicitor activity, 297
- Synthesis of 3,4-dideoxy-DL-hex-3-enopyranosides from 5-hydroxymethyl-2-furaldehyde, 465
- Synthesis of methyl shikimate from methyl (1,3,4/2,5)-2,3,4,5-tetrahydroxycyclohexane-1-carboxylate, 499
- Synthesis of monosaccharides with the aid of a new synthetic equivalent for the glycolaldehyde anion, 123
- Synthesis of the oligosaccharides of the glycolipidtype antigens from *Mycobacterium smegmatis*, 313
- Synthesis and stereochemistry of D-threo-3,4hexodiulose derivatives, 459
- L-Talitol, 1,3,5-trideoxy-3,5-di-C-methyl-, a chiron for the C-33-C-37 segment of amphotericin B, 229
- Total synthesis of cyclomaltohexaose, 277
- Trichloroacetimidate methods, application to the synthesis of mucin-type glycopeptides, 265
- 1,3,5-Trideoxy-3,5-di-C-methyl-L-talitol; a chiron for the C-33-C-37 segment of amphotericin B, 229
- (R)-1,4,7-Trioxaspiro[5.5]undecane, synthesis from D-fructose, 373
- Trisaccharide E-D-C of aureolic acids, synthesis of, 327
- Xanthomonas ATCC 53159, extracellular polysaccharide (S-657) from, structure, 117
- Xylan, homogeneous sulphation in N₂O₄-DMF, 107

